What is claimed is:

Claim 1. A low resistance value resistor comprising:

a resistor body comprised by a resistive alloy, the body having a thickness of 50-2000μm;

at least two electrodes, comprised by metal strips of flat tetragonal shape having a high electrical conductivity, each of said metal strips having a length equal with a width of said resistor body, and affixed on one surface of the resistor body separately wherein a diffusion layer is formed at an interface between the resistor body and the metal strip or in an interior of the resistor body under the metal strip by rolling and thermal diffusion bonding or junction;

a straight and uniform current path formed in the resistor body between said electrodes;

a fused solder layer only on each surface of the electrodes;

an insulation layer covering a portion of said surface of the resistor body defined between said electrodes; and

another insulation layer entirely covering another surface of said resistor body opposite to the surface of the resistor body having the electrodes.

Claim 2. A low resistance value resistor according to claim 1, wherein said fused solder layer having a thickness of 2-10 μm, said fused solder layer being formed by fused solder material of Sn:Pb=9:1 (weight %) or lead-free solder material.

Claim 3. A low resistance value resistor according to claim 1, wherein a thickness of the electrodes is 10-500 μm.

Claim 4. A low resistance value resistor according to claim 1, wherein a thickness of the

electrodes is not less than a 1/10 fraction of a thickness of the resistor body.

Claim 5. A low resistance value resistor according to claim 1, wherein said resistor body comprises Cu-Ni alloys, Ni-Cr alloys, Fe-Cr alloys, Mn-Cu-Ni alloys, Pt-Pd-Ag alloys, Au-Ag alloys, or Au-Pt-Ag alloys.

Claim 6. A low-resistance value resistor according to claim 1, wherein said electrode comprises copper.

Claim 7. A low resistance value resistor according to claim 1, wherein a resistivity of the electrode comprised by the high electrical conductivity metal strip is not less than a 1/150 fraction and not more than a 1/2 fraction of a resistivity of the resistor body.

Claim 8. A low resistance value resistor according to claim 1, wherein a resistance value of the resistor is adjusted by varying at least a thickness or a width of the resistor body.

Claim 9. A low resistance value resistor according to claim 1, wherein said insulation layer comprises one of epoxy resin, an acrylic resin, a fluorine resin, a phenol resin, a silicone resin, and a polyimide resin.

Claim 10. A low resistance value resistor according to claim 1, wherein said another insulation layer comprises one of epoxy resin, an acrylic resin, a fluorine resin, a phenol resin, a silicone resin, and a polyimide resin.

Claim 11. A low resistance value resistor having inlaid metal strips comprising a resistor

body of a ribbon shape comprised of a resistive alloy, the resistor body having two end portions extending a plane, and a central portion extending in at least one plane which is different from the plane of the end portions, and two electrodes each comprised by metal strips having a high electrical conductivity, each end portion having an electrode affixed thereto and inlaid in a groove such that a surface of each metal strip and a surface of the each end portion lie in a common plane.

Claim 12. A low resistance value resistor according to claim 11, wherein said resistive alloy comprises Cu-Ni alloys, Ni-Cr alloys, or Fe-Cr alloys.

Claim 13. A low resistance value resistor according to claim 11, wherein said metal strip comprises copper or nickel.

Claim 14. A low resistance value resistor according to claim 11, wherein said metal strip has a thickness of 10 to 500 μm.

Claim 15. A low resistance value resistor according to claim 11, wherein said metal strip is affixed to said resistive alloy by rolling and thermal diffusion bonding or junction.